

CURTIS *Windows*



IN buying windows or other woodwork, as in buying any other important commodity, we are all seeking the greatest *value per dollar* invested. Modern business has demonstrated that this greatest value can be attained when the product is manufactured in quantities. Quantity production, of course, can only be obtained by limiting the output to certain sizes, certain woods and certain patterns, all of which have been adopted as standard after long experience in meeting the needs of homebuilders.

In the design of windows and sash, as well as in the design of all Curtis Woodwork, the cooperation of a representative section of the architectural profession has been sought. Their suggestions have been applied to the several problems of design, materials, construction methods and workmanship.

The complete line of Curtis Woodwork is produced on this basis, and therefore represents the maximum value that you can get for your woodwork dollar. Each window shown in this section of the Curtis Catalog No. 500 is made in quantities (except where otherwise specified). These are ready for shipment, subject to prior order, in White Pine in the sizes listed. The face measurements of stiles and rails, as an aid to the selection of appropriate hardware, are listed on the various pages where required.

Naturally, in different sections of the country, local demand varies. For that reason, complete stocks of all designs and sizes of windows or other items of woodwork are not carried by all Curtis plants and all dealers. You can be assured, however, that any material you select from the Curtis Catalog No. 500 is available for immediate shipment from one of the Curtis factories. If your woodwork dealer does not have in his own stock the particular piece of woodwork you select, he can consult his Curtis Catalog Supplement and tell you from which factory your order can be shipped, how quickly, and the price.

The sizes listed on each page are those which are made in large quantities, with resultant lower cost. Obviously, you will get prompt service and guaranteed unvarying quality when you order from these lists. On material which is "odd" as to size, design or wood, quantity savings cannot, of course, apply.

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WINDOWS

by CURTIS



ARCHITECTURAL
*Interior and
Exterior*
WOODWORK
Standardized

CURTIS
Registered
Trademark

What Makes Curtis Windows Better?

HAVE you ever wondered what it is that makes one brand of windows better than another? Why should you trouble to look for the Curtis trademark on the windows you buy for your house? Of two windows which may look very much alike, what is the difference that makes the Curtis product the wiser buy?

If you were to go through the sash department in one of the Curtis factories, your interest would be aroused by some of the operations which are shown in the photographs on these pages. As you paused to watch these processes and follow the Curtis window in its making, your question would be answered—why Curtis windows are better.

After seasoning, the lumber that is to be used in making Curtis doors and windows goes first through the cutting department, where it is cut to usable widths and lengths. Then it goes through a planer to be surfaced to an even thickness, and is then sorted according to the use that is to be made of it. Longer and wider pieces go to the door department, while narrower and shorter pieces are used in window-making.



THE first operations in making Curtis windows are to cut the pieces of wood to exact lengths, and to make the mortises (slots) and tenons (tongues) which hold the wood parts firmly together. The tenoning of the bottom rail is performed on the machine at the left, called a "double-end tenoner," because it machines both ends of the stock at the same time. On the machine below, through-mortises are cut in the stiles, to member with the tenon of the bottom rail. Slip-mortises are cut in the stiles (the vertical wood parts), to member with the top and check rails, forming a joint that, when pinned, will resist the upward and downward thrust of opening and closing the window.

Only the bottom rail of the bottom sash has a through-tenon instead of a slip-tenon, for still greater strength at a needed point as shown at the left.



THE Curtis rabbed check rail described on pages 7 and 10 is made on the machine directly below, which also molds the rail to receive the glass. Small wood bars which divide the glass into smaller panes are molded in a similar way. In windows which are to have these smaller panes, the chisel mortiser, below at the right, cuts holes in the stiles and rails to receive tenons on the dividing bars and hold them firmly.





THE process of cutting the groove for the sash cord and boring the hole for the knot is accurately done on the machine directly above.

The completely machined sash stock is trademarked. To give the customer the advantages of quantity production, even on small orders, large quantities of machined sash material are always carried in stock.

Assembling sash material into windows of the required size and design, as shown at the right, is followed by placing each window into a clamp to hold it securely, while steel dowels are driven and set on the machine directly below. This is called "pinning."



FINALLY, the window is sanded, ready for your painter without further labor on the job. A special machine, shown below at the left, smooths the check rail and borb sides of the sash in the same operation.

Curtis windows are furnished either glazed or unglazed. When glazed at the Curtis factory, zinc "points" are driven into stiles and rails to hold the glass and then putty is applied. Both operations are shown directly below. The special groove, described on page 16, provides additional anchorage for the putty.

These are some of the operations which enter into the construction of a Curtis window before it comes to you.





WINDOWS C-2502 and C-2504

WINDOW C-2502 (two-light, 1 $\frac{3}{8}$ -inch check rail window, at the left) is furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening	Glass	Opening
12 x 24	1- 4 x 4- 6	20 x 22	2-0 x 4- 2	24	x 26	2-4	x 4-10
12 x 26	1- 4 x 4-10	20 x 24	2-0 x 4- 6	24	x 28	2-4	x 5- 2
14 x 26	1- 6 x 4-10	20 x 26	2-0 x 4-10	24	x 30	2-4	x 5- 6
16 x 16	1- 8 x 3- 2	20 x 28	2-0 x 5- 2	26	x 18	2-6	x 3- 6
16 x 20	1- 8 x 3-10	21 x 24	2-1 x 4- 6	26	x 20	2-6	x 3-10
16 x 24	1- 8 x 4- 6	21 x 28	2-1 x 5- 2	26	x 22	2-6	x 4- 2
16 x 26	1- 8 x 4-10	22 x 20	2-2 x 3-10	26	x 24	2-6	x 4- 6
16 x 28	1- 8 x 5- 2	22 x 24	2-2 x 4- 6	26	x 26	2-6	x 4-10
18 x 20	1-10 x 3-10	22 x 26	2-2 x 4-10	26	x 28	2-6	x 5- 2
18 x 24	1-10 x 4- 6	22 x 28	2-2 x 5- 2	26	x 30	2-6	x 5- 6
18 x 26	1-10 x 4-10	24 x 16	2-4 x 3- 2	27	x 20	2-7	x 3-10
18 x 28	1-10 x 5- 2	24 x 18	2-4 x 3- 6	27	x 24	2-7	x 4- 6
20 x 15	2- 0 x 3- 0	24 x 20	2-4 x 3-10	27 $\frac{1}{2}$	x 24	2-7 $\frac{1}{2}$	x 4- 6
20 x 16	2- 0 x 3- 2	24 x 22	2-4 x 4- 2	27 $\frac{1}{2}$	x 28	2-7 $\frac{1}{2}$	x 5- 2
20 x 18	2- 0 x 3- 6	24 x 24	2-4 x 4- 6	28	x 20	2-8	x 3-10
20 x 20	2- 0 x 3-10					36	x 26
						36	x 28
						3- 4 x 4-10	
						3- 4 x 5- 2	

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, 3 inches.

*WINDOW C-2504 (four-light, 1 $\frac{3}{8}$ -inch check rail window, at the right) is furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening	Glass	Opening
12 x 20	2- 4 x 3-10	12 x 24	2-4 x 4- 6	12	x 26	2-4	x 4-10

Face measurements: Stiles, 1 $\frac{3}{4}$ inches; top rail, 2 inches; bottom rail, 3 inches.

*Also carried in Western opening sizes, which are one inch wider.

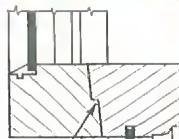
The Trim shown with Window C-2502 is C-5300; with Window C-2504, Casing C-5305. On page 7, Trim C-5050 is shown with Window C-2508.

Keeping the Heat In and the Cold Out

A WINDOW has two functions: to admit light, and to provide ventilation. To accomplish these two purposes, windows must be made with the utmost care.

From the standpoint of weather resistance, the weakest point of a window is the check rail—where the upper and lower sash come together. This is a place for wind to blow through and for heat to escape, when the sash come together in a straight or even a beveled line, as in ordinary windows.

Curtis engineers, after much experimentation, evolved the rabbeted (notched) check rail shown below in cross section. Seven times as much wind pressure is required to pass through this rabbeted meeting rail as through plain ones.



RABBIT
IN CHECK
RAIL.



WINDOW C-2508

THE term "double-hung" is applied to windows composed of two separate sliding sash, as distinguished from casements, which swing, in or out. The windows on this page and page 6 are double-hung windows. The panes of glass are called "lights." Thus on page 6 are shown the two-light and the four-light window, and on this page the eight-light window.

Two-light windows are much used, for all kinds of buildings. Both C-2502 and C-2504

on page 6 have been long in general use and are retained in this catalog because of their popularity. Wherever inexpensive but well-made windows are wanted, either of these can be depended upon for durability. Window C-2508 on this page is a tall, narrow opening of excellent proportions, for small wall spaces. These are especially desirable also for grouping, producing an effect similar to casements. Often these windows are used as side units in bays.

WINDOW C-2508 is furnished in the following sizes:

Glass	*CHECK RAIL 1 $\frac{5}{8}$ -inch			**PLAIN RAIL 1 $\frac{5}{8}$ -inch		
	Opening	Glass	Opening	Glass	Opening	Glass
8 x 10	1-8 x 3-10	9 x 12	1-10 x 4-6	8 x 10	1- 8 x 3-10	10 x 12
		10 x 12	2- 0 x 4-6	9 x 12	1-10 x 4- 6	10 x 14

Face measurements: Stiles, 1 $\frac{7}{8}$ inches; top rail, 1 $\frac{3}{4}$ inches; bottom rail, 2 $\frac{3}{4}$ inches.

*Also carried in Western opening sizes, which are one inch wider.

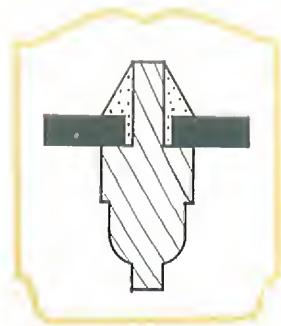
**Also carried in Western opening sizes, which are one-half inch wider.

For information regarding existing stocks, shipping points and prices, consult your Woodwork dealer's Curtis Catalog Supplement.



*Wood Dividing Bars
Add to Good Looks*

ONE of the many important details that make a Curtis window good-looking is the use of wood bars or muntins that divide the glass into smaller panes. In the cross section below, the lined portion is the wood bar. The glass (solid) is fitted against the notch in the bar and held in place with zinc brads and sealed with putty (dotted) on the outside of the window. Note the pleasing molded outline of the muntins inside the window. They are narrow in order not to obstruct the light, but deep, to give character to the window. Where these bars meet other wood parts of the window, they are held with a tenon joint. Muntins of this kind in Curtis windows give them an unusually attractive and finished appearance.



WINDOW C-2512

MUCH of the appeal which attaches to old houses of every country is due to their small-paned windows. The small lights with their painted wood dividing bars carry out the other structural lines of the building. In recent years there has been a revival of appreciation among homebuilders for these divided-light windows. Architects and interior decorators always favor them. The increasing demand for windows of this sort is responsible

for such good-looking designs as this twelve-light double-hung window. It has been exceptionally popular, especially for Colonial work. It is made up with lights of different sizes, thus securing openings of different widths and heights. It is always best to have the windows in a house uniform in size as far as possible. Windows C-2508, page 7, and C-2516, page 10, may be used when wider or narrower windows are required.

WINDOW C-2512 is furnished in the following sizes:

****CHECK RAIL $1\frac{3}{8}$ -inch**

Glass	Opening	Glass	Opening	Glass	Opening	Glass	Opening
8 x 10	2-4 x 3-10	9 x 13	2- 7 x 4-10	8 x 10	2-4 x 3-10	10 x 12	2-10 x 4-6
9 x 12	2-7 x 4- 6	9 x 14	2- 7 x 5- 2	9 x 12	2-7 x 4- 6	10 x 14	2-10 x 5-2

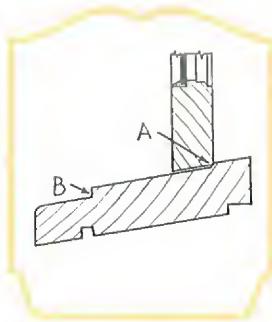
Face measurements: Stiles, $1\frac{3}{4}$ inches; top rail, $1\frac{3}{4}$ inches; bottom rail, $2\frac{3}{4}$ inches.

**Also carried in Western opening sizes, which are one-half inch wider.

With Window C-2512 above, Trim C-5000 is shown. Window C-2513 on page 9 has Trim C-5200. No hardware is furnished with Curtis windows.

Curtis Frames Increase the Coziness of the Home

YOUR windows can be only as weatherproof as the frames which hold them in the walls. Curtis frames have many distinctive weather-resisting features. Below is a section through the sill of a Curtis frame. Both the sill and the lower edge of the window slope to the outside, to shed water. At the inner point, where they meet, there is a rabbet (notch) in the sill (A). Your carpenter bevels the bottom of the sash to fit this notch and the bevel of the sill. This tight joint prevents wind or rain from beating in, under the window, and at the same time acts as a wedge to hold the window more tightly in the frame. Another notch (B) provides a shoulder against which the screen, shutter or storm sash fits snugly.



WINDOW C-2513

NO single feature of the exterior does more to make or destroy the good appearance of a house than the windows. Whatever its type, a house with windows poorly proportioned, badly placed or ugly in design cannot be successful. Great care should be taken in selecting suitable windows. Here is a companion design to the window on page 8. This is a twelve-light circle-head window to be used in houses with round-topped openings, such as those of Spanish or Italian influence.

These Curtis windows at once lend distinction to a building and lift it out of the ordinary. Notice the arched top, which is a perfect semi-circle, both in the glass and wood portions of the window. The curved wood top rail is made of two pieces of wood, in each of which the length is with the grain of the wood for greater strength.

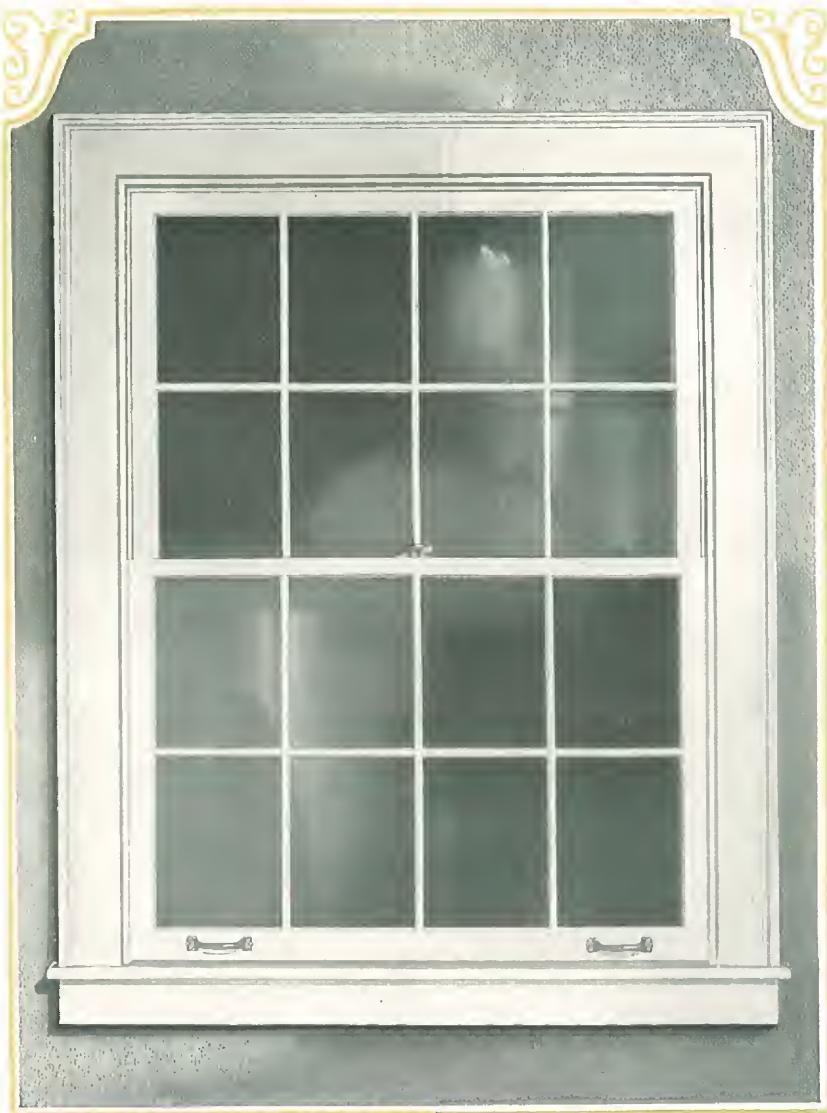
Curtis circle-head windows are made with the same construction features that have made all types of Curtis windows so satisfactory.

WINDOW C-2513, 1 $\frac{3}{8}$ -inch check rail, is furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening
8 x 10	2-4 x 4-0 $\frac{1}{4}$	9 x 12	2-7 x 4-7 $\frac{3}{4}$	10 x 12	2-10 x 4-9 $\frac{1}{4}$

Face measurements: Stiles, 1 $\frac{3}{4}$ inches; top rail, 1 $\frac{3}{4}$ inches; bottom rail, 2 $\frac{3}{4}$ inches.

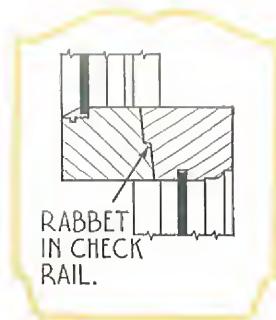
For information regarding existing stocks, shipping points and prices, consult your Woodwork dealer's Curtis Catalog Supplement.



Curtis Windows Tight Against the Weather

IT is said that one-fourth of the fuel burned in the average house is wasted, due to window leakage. The weakest point of most windows, from the standpoint of weather resistance, is the check rail or meeting rail, where the two sash come together. Here there is a chance for the escape of heated air and the leakage of cold air and of water which will destroy the comfort of the house and ruin walls and draperies.

Curtis windows are strengthened at this point by a rabbeted (notched) check rail devised in the Curtis factories. This rabbeted check rail is shown in cross section in the detail below. Comparing it with ordinary windows, as shown in the detail on page 11, you will see how effectually the Curtis rail guards against leakage of wind and rain.



WINDOW C-2516

ONE of the new Curtis designs is this sixteen-light window. Its satisfying proportions hold good in any of the sizes listed below.

The sixteen-light window is a reproduction of those found in many houses of Revolutionary times. A large window is often desirable either for furnishing extra light to the interior, or for architectural effect. The use of small panes in this Curtis window fills the need for large glass area, without losing good appearance and uniformity of design. Since the panes are of similar size to those in other

Curtis windows, a harmonious effect can be carried out throughout the house, regardless of the size of the openings. This matching up of patterns is just one of the fine points of Curtis manufacture that make it well worth while for the homebuilder to select Curtis Woodwork.

The Curtis trademark on windows assures you of design that is architecturally correct and guarantees that they are made with Curtis methods—which means durability, ease of operation and long life. Look for the Curtis trademark on the windows you buy.

WINDOW C-2516, $1\frac{3}{8}$ -inch check rail, is furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening
8 x 10	3-0 x 3-10	9 x 12	3-4 x 4-6	10 x 12	3-8 x 4-6
8 x 12	3-0 x 4-6	9 x 14	3-4 x 5-2	10 x 13	3-8 x 4-10

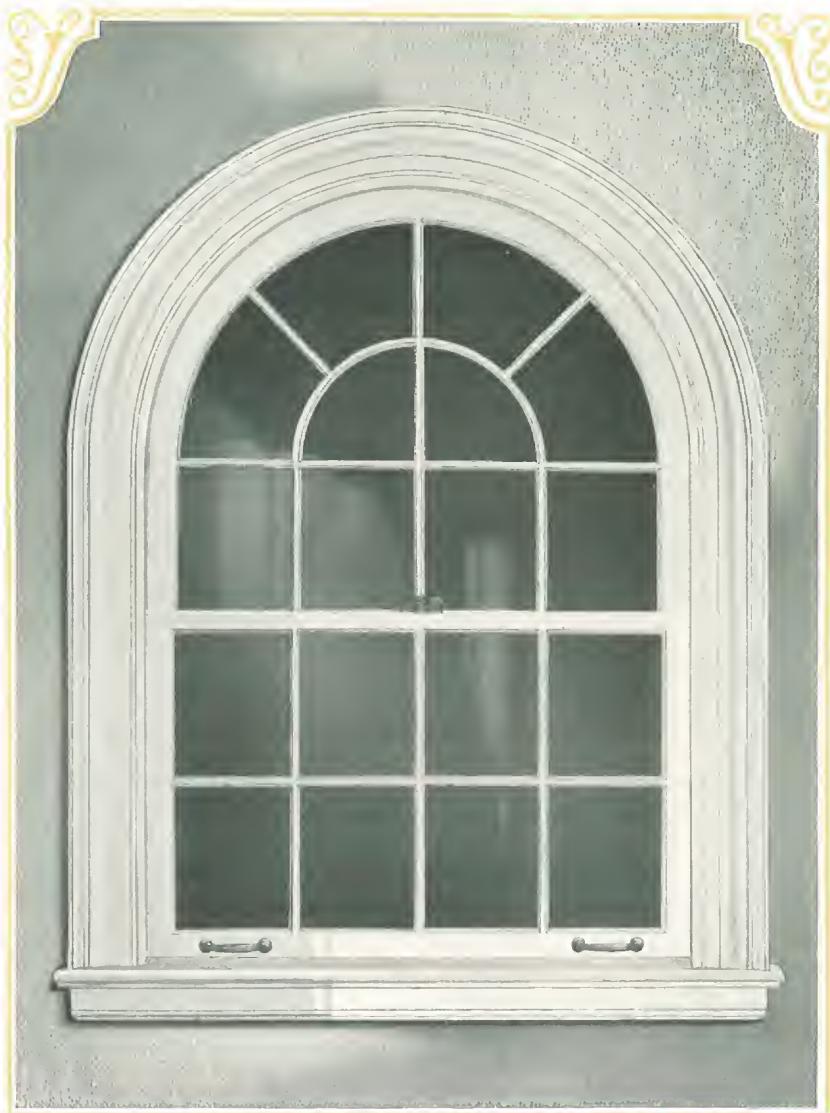
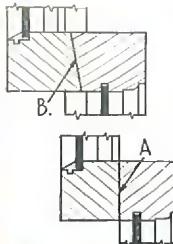
Face measurements: Stiles, $1\frac{3}{4}$ inches; top rail, $1\frac{3}{4}$ inches; bottom rail, $2\frac{3}{4}$ inches. Glass sizes listed are approximate.

Window C-2516 above has Trim C-5150. Window C-2518, on page 11, has Casing C-5205 and Backband C-5251. No hardware is furnished with Curtis windows.

How Curtis Rabbeted Check Rail Saves Coal

THE sketches below show two common methods of making the meeting rails of double-hung windows (where the two sash come together at the center). Figure A shows the simpler method. Obviously it offers little resistance to leakage of air or water from gusts of wind or driving rain. Figure B shows the common beveled joining, which is a step in advance, but which is still far from weather-proof.

The Curtis rabbeted check rail, a Curtis feature, shown on pages 7 and 10, is more nearly weather-tight than either of these. Looking at these diagrams, it is not hard to understand how rain and wind that could force a way through such rails as A and B, would be turned aside by the rabbeted Curtis check rail.



WINDOW C-2518

A COMPANION design to the sixteen-light square-topped window shown on page 10 is this one, in which the upper sash is rounded and has ten panes instead of eight. Compare it with the twelve-light round-topped window on page 9 to get the effect of the greater width.

The lower sash of circle-head windows can of course not be raised higher than the length of one pane, but, as these are usually used only in the main rooms on the first floor, this is not a disadvantage. Square-topped windows of corresponding design are ordinarily used in the rest of the house.

The wood bars or muntins form a most attractive design which requires little or no draping to become a beautiful feature of the interior.

It is not enough that windows should be well designed and well placed, however, so that they form a good setting for a beautiful view. The cheapest windows and frames you can buy might do that. But they could not have the Curtis weatherproof construction. The small amount additional which it may take to equip your home with the best instead of the poorest windows and frames is an investment in comfort and in fuel-saving.

WINDOW C-2518, 1 $\frac{3}{8}$ -inch check rail, is furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening
8 x 10	3-0 x 4-4 $\frac{1}{4}$	9 x 12	3-4 x 5-0 $\frac{1}{4}$	10 x 12	3-8 x 5-2 $\frac{1}{4}$

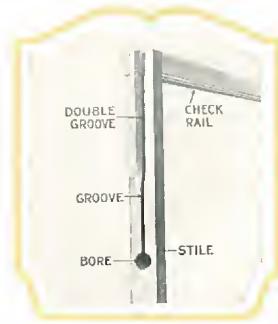
Face measurements: Stiles, 1 $\frac{3}{4}$ inches; top rail, 1 $\frac{3}{4}$ inches; bottom rail, 2 $\frac{3}{4}$ inches. Glass sizes listed are approximate.

For information regarding existing stocks, shipping points and prices, consult your Woodwork dealer's Curtis Catalog Supplement.



*Made with Extra Care,
Curtis Windows 'Work'*

WINDOWS that won't "work" have destroyed many a good temper. Extra care taken in machining Curtis windows insures ease of operation and lasting service. The figure below shows the cleanly cut groove and double groove for the sash cord and bore for the knot. These are accurately machined at the Curtis factory, to allow the sash to slide freely, and to hold the cord in its place. They are ready for the workman on the job without further fitting. The check rail is tenoned, or tongued, to fit the slot in the stile. This joint is reinforced with steel dowel pins so that it cannot pull apart when the window is shoved up or down, as would a butt joint or a miter.



WINDOW C-2556

WINDOWS with small panes in the upper sash and a single large pane in the lower sash are called "top-divided" windows. They represent a compromise in design between the two-light window and the window with both sash divided into small lights. In Window C-2556, the upper sash is divided into six rectangular lights, while the lower sash is a single light.

Top-divided windows are popular with home-builders, particularly for houses which do not follow any definite period in architecture. Though primarily intended for light and ventilation of the interior, windows are an important element in the appearance of the building as a whole, giving it a touch that is good or otherwise, according to whether the windows are well selected.

WINDOW C-2556, 1 3/8-inch check rail, is furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening	Glass	Opening
24 x 15	2-4 x 3- 0	26 x 15	2-6 x 3- 0	27 x 20	2-7 x 3-10	28 x 28	2- 8 x 5- 2
24 x 16	2-4 x 3- 2	26 x 18	2-6 x 3- 6	27 x 22	2-7 x 4- 2	30 x 24	2-10 x 4- 6
24 x 18	2-4 x 3- 6	26 x 20	2-6 x 3-10	27 x 24	2-7 x 4- 6	30 x 26	2-10 x 4-10
24 x 20	2-4 x 3-10	26 x 22	2-6 x 4- 2	27 x 26	2-7 x 4-10	30 x 28	2-10 x 5- 2
24 x 22	2-4 x 4- 2	26 x 24	2-6 x 4- 6	27 x 28	2-7 x 5- 2	32 x 24	3- 0 x 4- 6
24 x 24	2-4 x 4- 6	26 x 26	2-6 x 4-10	28 x 24	2-8 x 4- 6	32 x 26	3- 0 x 4-10
24 x 26	2-4 x 4-10	26 x 28	2-6 x 5- 2	28 x 26	2-8 x 4-10	32 x 28	3- 0 x 5- 2
24 x 28	2-4 x 5- 2						

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, 3 inches.

A simple head casing Trim C-5400 is shown with Window C-2556 above. On page 13 the finish on both windows consists of Trim C-5350.

THE only difference between Window C-2563 and Window C-2564 is in their width. Window C-2563 is made in glass widths 26 inches or less, with three panes in the upper sash, while Window C-2564 is made in glass widths 28 inches or more, and has four panes in the upper sash, in order to maintain the same har-



monious proportions for windows of various sizes throughout the house.

WINDOWS C-2563 and C-2564

ALL narrow panes lend height to short windows or low-ceilinged rooms. Following no specific architectural type, this style is suitable for a wide range of building uses.

Windows and their frames are an important factor in the interior comfort of the home. Openings which let the wintry blasts shrill in, which let you "heat all outdoors," which

admit rain and dust to spoil your walls and draperies—such windows may cost a little less (at first) than windows bearing the Curtis trademark, but they will be a constant reminder that such economy doesn't pay.

The difference between the best and the poorest windows you can buy is not great in dollars and cents, and is a wise investment.

WINDOW C-2563 (small illustration), 1 $\frac{3}{8}$ -inch check rail, is furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening	Glass	Opening
20 x 20	2-0 x 3-10	22 x 26	2-2 x 4-10	24 x 20	2-4 x 3-10	26 x 24	2-6 x 4-6
20 x 24	2-0 x 4- 6	22 x 28	2-2 x 5- 2	24 x 24	2-4 x 4- 6	26 x 26	2-6 x 4-10
20 x 26	2-0 x 4-10	24 x 16	2-4 x 3- 2	24 x 26	2-4 x 4-10	26 x 28	2-6 x 5- 2
20 x 28	2-0 x 5- 2	24 x 18	2-4 x 3- 6	24 x 28	2-4 x 5- 2		

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, 3 inches.

WINDOW C-2564 (large illustration), 1 $\frac{3}{8}$ -inch check rail, is furnished in the following sizes:

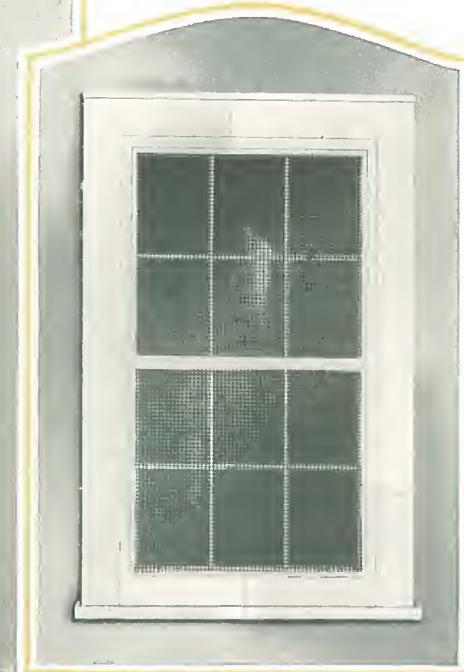
Glass	Opening	Glass	Opening	Glass	Opening
28 x 24	2-8 x 4- 6	28 x 28	2- 8 x 5-2	30 x 26	2-10 x 4-10
28 x 26	2-8 x 4-10	30 x 24	2-10 x 4-6	30 x 28	2-10 x 5- 2

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, 3 inches.

For information regarding existing stocks, shipping points and prices, consult your Woodwork dealer's Curtis Catalog Supplement.



CURTIS window and door screens are made of White Pine, a wood especially adapted to outside use because it is unusually weather-resisting. The wood portions are $1\frac{1}{8}$ inches thick, and are joined with mortise-and-tenon joints. The screen wire is securely stapled to the wood frame, and the joining is covered with a small molding mitered at the corners. The result is a neat,



durable screen which will add to the comfort of your home without spoiling its appearance.

SCREENS C-2601 and C-2602

TO protect against annoying, germ-carrying insects well-made screens may be chosen that will not detract from the appearance of the house. Both designs are furnished for windows of all regular sizes, as listed below.

HALF SCREENS C-2601 (large illustration), $1\frac{1}{8}$ inches thick, are furnished in sizes corresponding to those listed for FULL SCREENS C-2602.

Face measurements: Stiles, 2 inches; top rail, 1 inch; bottom rail, $4\frac{1}{2}$ inches.

FULL SCREENS C-2602 (small illustration), $1\frac{1}{8}$ inches thick, are furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening	Glass	Opening
16 x 20	1- 8 x 3- $11\frac{1}{2}$	20 x 20	2-0 x 3- $11\frac{1}{2}$	24 x 20	2-4 x 3- $11\frac{1}{2}$	26 x 30	2- 6 x 5- $7\frac{1}{2}$
16 x 24	1- 8 x 4- $7\frac{1}{2}$	20 x 24	2-0 x 4- $7\frac{1}{2}$	24 x 24	2-4 x 4- $7\frac{1}{2}$	28 x 24	2- 8 x 4- $7\frac{1}{2}$
16 x 26	1- 8 x 4- $11\frac{1}{2}$	20 x 26	2-0 x 4- $11\frac{1}{2}$	24 x 26	2-4 x 4- $11\frac{1}{2}$	28 x 26	2- 8 x 4- $11\frac{1}{2}$
16 x 28	1- 8 x 5- $3\frac{1}{2}$	20 x 28	2-0 x 5- $3\frac{1}{2}$	24 x 28	2-4 x 5- $3\frac{1}{2}$	28 x 28	2- 8 x 5- $3\frac{1}{2}$
16 x 30	1- 8 x 5- $7\frac{1}{2}$	20 x 30	2-0 x 5- $7\frac{1}{2}$	24 x 30	2-4 x 5- $7\frac{1}{2}$	28 x 30	2- 8 x 5- $7\frac{1}{2}$
18 x 20	1-10 x 3- $11\frac{1}{2}$	22 x 24	2-2 x 4- $7\frac{1}{2}$	24 x 32	2-4 x 5- $11\frac{1}{2}$	30 x 24	2-10 x 4- $7\frac{1}{2}$
18 x 24	1-10 x 4- $7\frac{1}{2}$	22 x 26	2-2 x 4- $11\frac{1}{2}$	26 x 24	2-6 x 4- $7\frac{1}{2}$	30 x 26	2-10 x 4- $11\frac{1}{2}$
18 x 26	1-10 x 4- $11\frac{1}{2}$	22 x 28	2-2 x 5- $3\frac{1}{2}$	26 x 26	2-6 x 4- $11\frac{1}{2}$	30 x 28	2-10 x 5- $3\frac{1}{2}$
18 x 28	1-10 x 5- $3\frac{1}{2}$	22 x 30	2-2 x 5- $7\frac{1}{2}$	26 x 28	2-6 x 5- $3\frac{1}{2}$	30 x 30	2-10 x 5- $7\frac{1}{2}$
18 x 30	1-10 x 5- $7\frac{1}{2}$						

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, $4\frac{1}{2}$ inches.

On page 15, Casing C-5104 is illustrated with Casement C-2703.
With Casement C-2706, the Casing is C-5012.

WHEN properly fitted with modern hardware and Curtis frames, casements are tight against the weather. When casements are not weatherproof, it is more often the fault of the frame than of the sash



itself. Curtis casement frames have weatherproof features which mean much to your comfort.

CASEMENTS C-2703 and C-2706

INSTEAD of sliding up and down, as regular double-hung windows do, casements swing from hinges. The weight of the casement is therefore supported entirely by the hinges, and in order that this strain may not be too great, casements are relatively small, and tall rather than wide. Their proportions are different and interesting, and lend themselves especially well to grouping, producing the low, wide effect that is so often desirable. Rectangular casements, like those pictured

here, may be used singly or in pairs or groups, to afford any desired amount of glass area. There has always been an artistic appeal about casements. Some types of houses seem incomplete with any other kind of windows. Casements may be appropriately used in any type of house, and are often an added element of charm. The choice between casements and double-hung windows is often a matter of personal preference. Design C-2703 is especially adapted to Italian and Spanish architecture.

CASEMENTS C-2703 (large illustration), detailed information found in Curtis Catalog Supplement.

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, 3 inches.

CASEMENTS C-2706 (small illustration) are furnished in the following sizes:

Glass	Thickness	Opening	Glass	Thickness	Opening
8 x 10	1 $\frac{3}{8}$	1-8 $\frac{1}{4}$ x 2-11 $\frac{1}{2}$	8 x 10	1 $\frac{3}{4}$	1-8 $\frac{1}{4}$ x 2-11 $\frac{1}{2}$
10 x 12	1 $\frac{3}{8}$	2-0 $\frac{1}{4}$ x 3- 5 $\frac{1}{2}$	10 x 12	1 $\frac{3}{4}$	2-0 $\frac{1}{4}$ x 3- 5 $\frac{1}{2}$
10 x 14	1 $\frac{3}{8}$	2-0 $\frac{1}{4}$ x 3-11 $\frac{1}{2}$	10 x 14	1 $\frac{3}{4}$	2-0 $\frac{1}{4}$ x 3-11 $\frac{1}{2}$

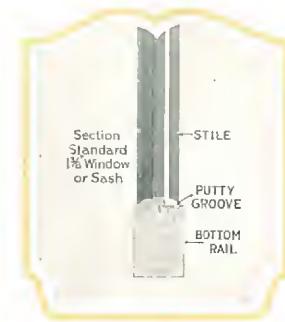
Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, 3 inches.

For information regarding existing stocks, shipping points and prices, consult your Woodwork dealer's Curtis Catalog Supplement.



Putty Seals Joint Between Wood and Glass

IN Curtis windows and casements, the glass panes are securely fastened with zinc "points" and putted on the outside. The putty protects the wood from rotting due to water trickling down along the glass and seeping in. The photograph below shows a cross section of the bottom rail of a Curtis window or sash. Stiles (the upright wood parts) are putted in the same way. Curtis windows have a special putty groove (see diagram), which forms a "key" or additional anchorage to hold the putty in place and prevent it from loosening. Only the most dependable putty procurable is used in making Curtis windows and sash.



CASEMENT C-2708

FROM either the interior or the exterior of the house, casements are effective and beautiful. Well-designed windows, such as Casement C-2708 shown on this page, are in themselves decorative and need very little draping. Wood dividing bars with molded outline are one of the attractive features of Curtis casements. The best effect is secured by painting these muntins white on the exterior, and finishing the interior to accord with the trim in the room.

An outstanding advantage of casements is the fact that, as they swing on hinges, they may be opened their entire area, while the double-hung window cannot be opened more than half its area. Casements look well in groups, and provide maximum ventilation.

For the English cottage or Tudor house, nothing could be more effective than Casements C-2708. Proper hardware insures ease of operation, and solves the problems of screening and curtaining.

CASEMENT C-2708 is furnished in the following sizes:

Glass	Thickness	Opening	Glass	Thickness	Opening
8 x 10	1 3/8	1-8 1/4 x 3-9 3/4	8 x 10	1 3/4	1-8 1/4 x 3-9 3/4
10 x 12	1 3/8	2-0 1/4 x 4-5 3/4	10 x 12	1 3/4	2-0 1/4 x 4-5 3/4
10 x 14	1 3/8	2-0 1/4 x 5-1 3/4	10 x 14	1 3/4	2-0 1/4 x 5-1 3/4

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, 3 inches.

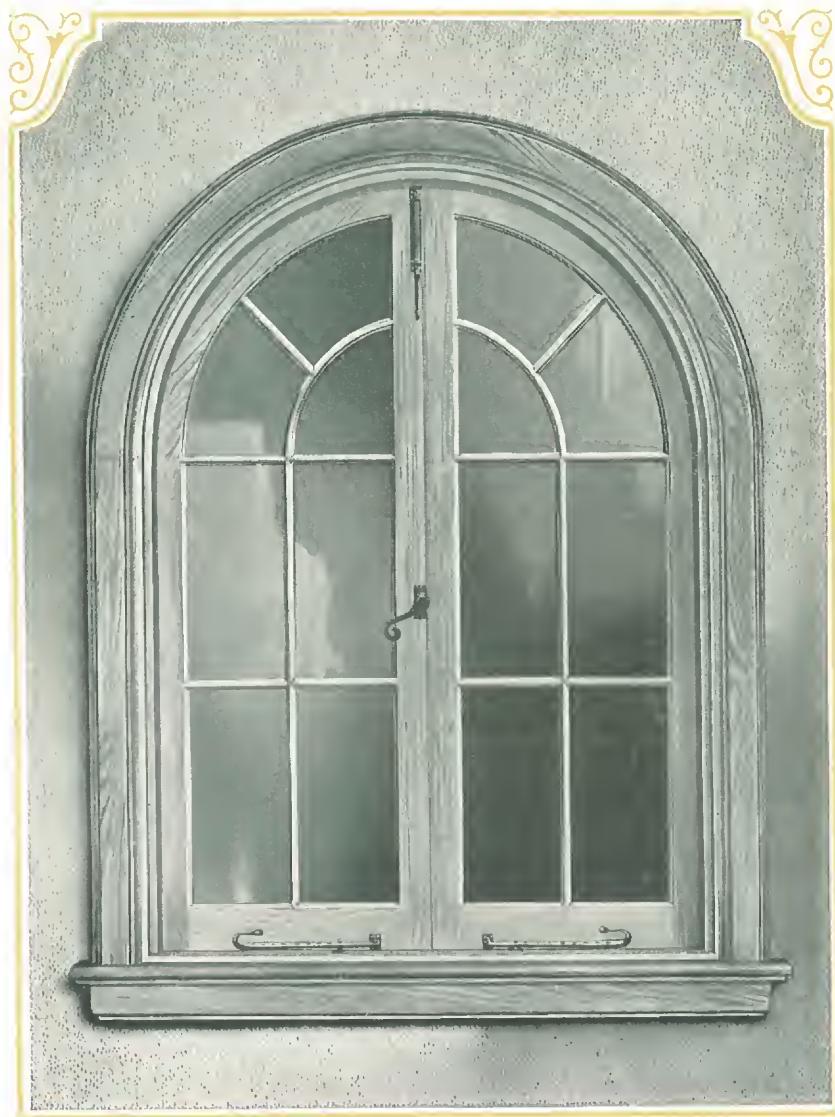
The Trim shown with Casement C-2708 above is C-5200; the attractive Trim shown with Casements C-2714 on page 17 is Casing C-5104 and Molding C-5089. No hardware is furnished with Curtis sash.

Curtis Window Joints Won't Pull Apart

THREE are several ways of joining two pieces of wood—the miter, butt, dowel, dovetail, mortise-and-tenon, glue and other joints, each suited for special purposes. Of these, the mortise-and-tenon is selected as best for holding together the stiles and rails of Curtis windows.

As shown in the photograph below, each stile is mortised to receive the tenon of the rail. This joint is further strengthened by cross-pinning with two steel pins.

This joint is only one of the many features of Curtis windows that increase their lasting qualities and their good looks. Windows made with so much care are bound to be durable and to resist hard usage. That is why the wise homebuilder looks for the Curtis trademark on windows and sash.



CASEMENTS C-2714

ONE of the newest types of windows is the circle head, which is already proving popular with homebuilders, both for double-hung windows and for casements. These harmonize with the rounded doors and archways that are much used in Spanish and Italian designs, especially on the first story. Nothing could be more in keeping with these styles than the handsome casements pictured on this page. They are distinctive enough for the large residence, and will add interest to any building.

Notice the perfect symmetry of the rounded top, which is a true semi-circle. The curved

wood portions, both of the window itself and of the trim around it, are cut with the grain of the wood lengthwise for greater strength. These casements are furnished in pairs, and are rabbeted.

The smaller size is suitable for use with six-light casements (8 by 10-inch panes); and the larger size is suitable for use with eight-light casements (10 by 12-inch panes).

The trim which frames a window has a great deal to do with the general effect of the interior. This is especially true when openings such as these are used, which are unusual in design and shape.

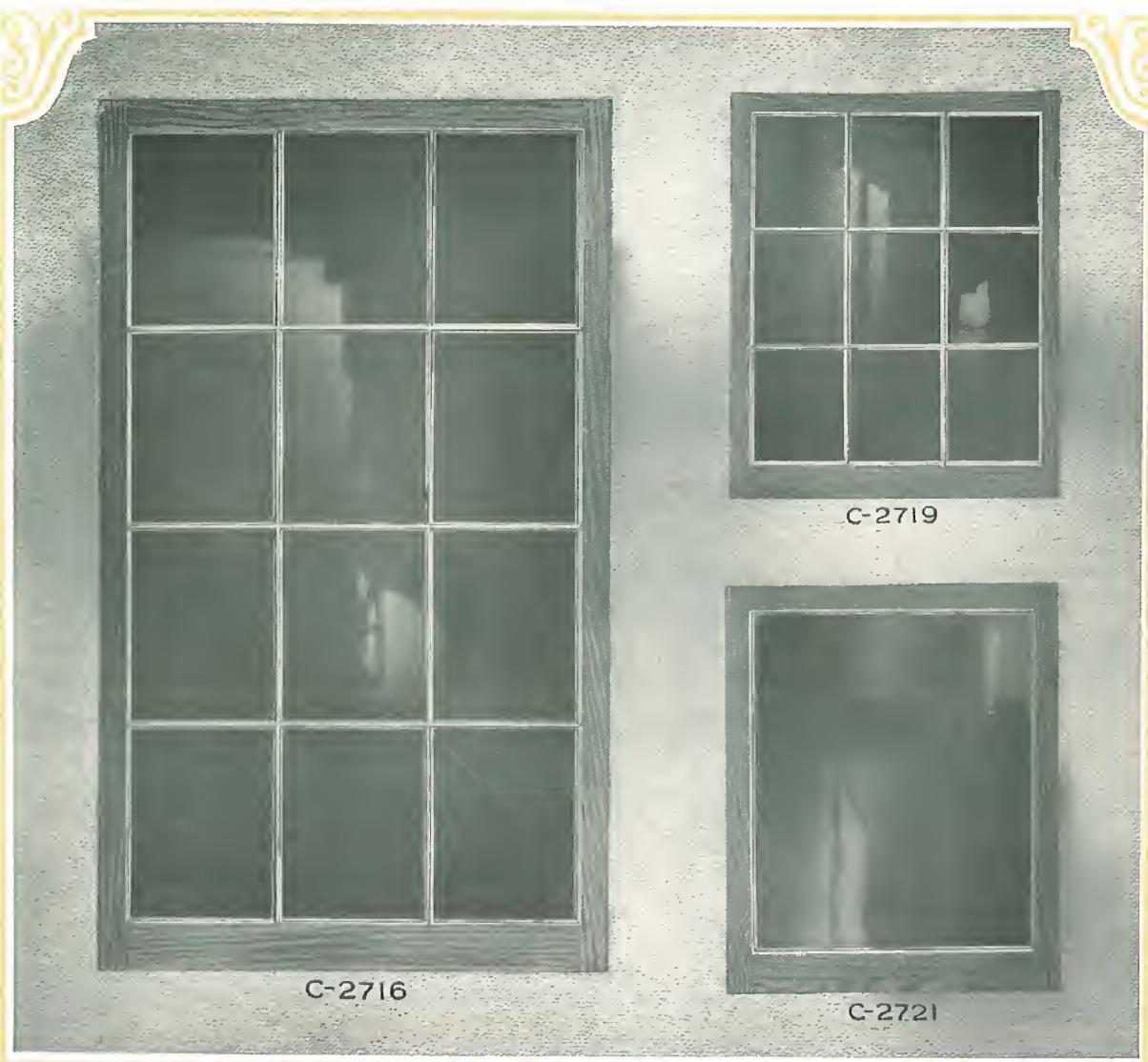
CASEMENTS C-2714, 13/4 inches thick, are furnished in the following opening sizes:

3-4 x 2-11 $\frac{1}{2}$

4-0 x 4-5 $\frac{3}{4}$

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, 3 inches. Sash are rabbeted in pairs.

*For information regarding existing stocks, shipping points and prices, consult
your Woodwork dealer's Curtis Catalog Supplement.*



HERE are some casement sash for miscellaneous uses, such as stair landing, attic, for porch enclosures, and at the sides of

the fireplace. These are made with the same careful construction that distinguishes all sash bearing the Curtis trademark.

CASEMENT C-2716, twelve-light, $1\frac{3}{8}$ inches thick, is furnished in the following sizes:

Glass	Opening	Glass	Opening
8 x 12	2-4 x 4-5 $\frac{3}{4}$	9 $\frac{1}{2}$ x 14	2- 8 x 5-1 $\frac{3}{4}$
8 x 13	2-4 x 4-9 $\frac{3}{4}$	9 $\frac{1}{2}$ x 15	2- 8 x 5-5 $\frac{3}{4}$
8 x 14	2-4 x 5-1 $\frac{3}{4}$	10 x 12	2-10 x 4-5 $\frac{3}{4}$
8 x 15	2-4 x 5-5 $\frac{3}{4}$	10 x 13	2-10 x 4-9 $\frac{3}{4}$
8 $\frac{2}{3}$ x 12	2-6 x 4-5 $\frac{3}{4}$	10 x 14	2-10 x 5-1 $\frac{3}{4}$
8 $\frac{2}{3}$ x 13	2-6 x 4-9 $\frac{3}{4}$	10 x 15	2-10 x 5-5 $\frac{3}{4}$
8 $\frac{2}{3}$ x 14	2-6 x 5-1 $\frac{3}{4}$	10 $\frac{2}{3}$ x 12	3- 0 x 4-5 $\frac{3}{4}$
8 $\frac{2}{3}$ x 15	2-6 x 5-5 $\frac{3}{4}$	10 $\frac{2}{3}$ x 13	3- 0 x 4-9 $\frac{3}{4}$
9 $\frac{1}{2}$ x 12	2-8 x 4-5 $\frac{3}{4}$	10 $\frac{2}{3}$ x 14	3- 0 x 5-1 $\frac{3}{4}$
9 $\frac{1}{2}$ x 13	2-8 x 4-9 $\frac{3}{4}$	10 $\frac{2}{3}$ x 15	3- 0 x 5-5 $\frac{3}{4}$

Face measurements: Stiles, $1\frac{3}{4}$ inches; top rail, 2 inches; bottom rail, 3 inches.

CASEMENT C-2719, nine-light, $1\frac{3}{8}$ inches thick, is furnished in the following sizes:

Glass	Opening	Glass	Opening
8 x 10	2- 4 x 2-11 $\frac{1}{2}$	9 x 12	2- 7 x 3- 5 $\frac{1}{2}$
10 x 12	2-10 x 3- 5 $\frac{1}{2}$		

Face measurements: Stiles, $1\frac{3}{4}$ inches; top rail, 2 inches; bottom rail, 3 inches.

CASEMENT C-2721, one-light, $1\frac{3}{8}$ inches thick, is furnished in the following sizes:

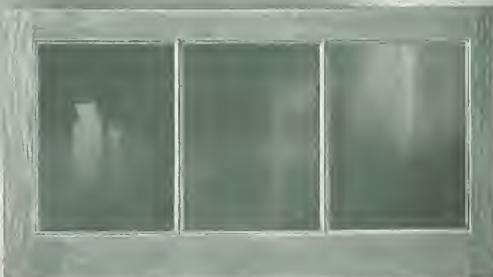
Glass	Opening	Glass	Opening	Glass	Opening
16 x 20	1- 8 x 2-1	20 x 20	2-0 x 2-1	24 x 20	2-4 x 2-1
18 x 20	1-10 x 2-1			24 x 24	2-4 x 2-5

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, 3 inches.

White Pine, an ideal wood for outside uses, is employed in the manufacture of these sash, as well as in all other Curtis windows.



C-2802



C-2803



C-2804



C-2806

*CELLAR SASH C-2802, two-light, $1\frac{3}{8}$ inches thick, is furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening
10 x 12	2-0 x 1-5	12 x 16	2-4 x 1-9	14 x 16	2-8 x 1-9
10 x 16	2-0 x 1-9	12 x 18	2-4 x 1-11	14 x 18	2-8 x 1-11
12 x 12	2-4 x 1-5	12 x 20	2-4 x 2-1	14 x 20	2-8 x 2-1
12 x 14	2-4 x 1-7	12 x 24	2-4 x 2-5		

Face measurements: Stiles, $1\frac{3}{8}$ inches; top rail, 2 inches; bottom rail, 3 inches.

BARN OR CASEMENT SASH C-2804, four-light, $1\frac{1}{8}$ inches thick, is furnished in all the following sizes; $1\frac{3}{8}$ inches thick in sizes marked ‡.

Glass	Opening	Glass	Opening	Glass	Opening
‡8 x 10	1-8 x 2-1	9 x 14	1-10 x 2-9	‡10 x 14	2-0 x 2-9
‡9 x 12	1-10 x 2-5	‡10 x 12	2-0 x 2-5	12 x 14	2-4 x 2-9

Face measurements: Stiles, $1\frac{3}{8}$ inches; top rail, $1\frac{3}{4}$ inches; bottom rail, 3 inches.

BARN SASH C-2806, six-light, is furnished in the following sizes:

Glass	Thickness	Opening
8 x 10	$1\frac{3}{8}$ and $1\frac{3}{8}$	2- 4 x 2-1
9 x 12	$1\frac{3}{8}$ and $1\frac{3}{8}$	2- 7 x 2-5
10 x 12	$1\frac{3}{8}$ and $1\frac{3}{8}$	2-10 x 2-5

Face measurements: Stiles, $1\frac{3}{4}$ inches; top rail, $1\frac{3}{4}$ inches; bottom rail, 3 inches.

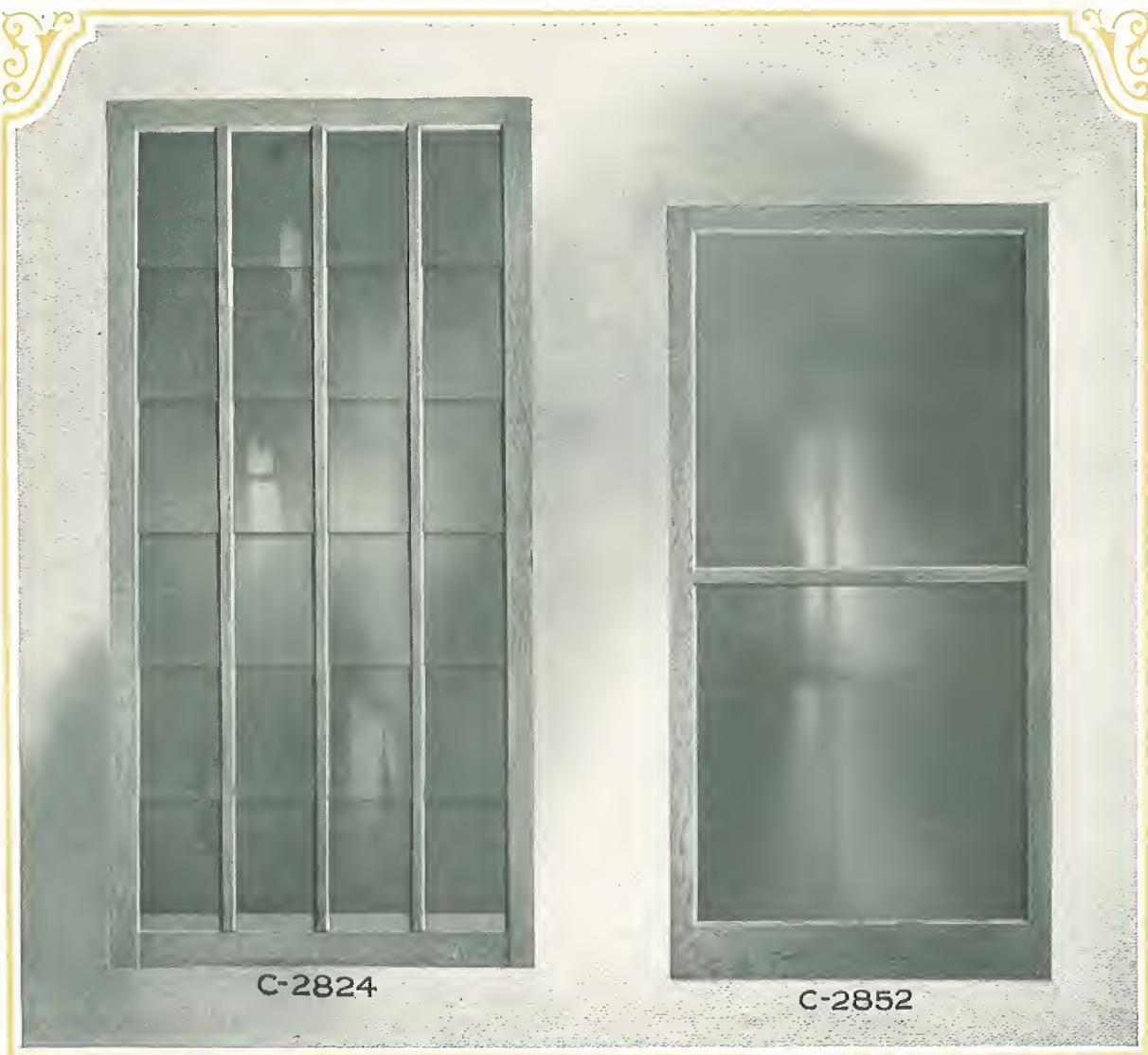
CELLAR SASH C-2803, three-light, is furnished in the following sizes:

Glass	Thickness	Opening
7 x 9	$1\frac{3}{8}$	2- 1 x 1-2
8 x 10	$1\frac{3}{8}$	2- 4 x 1-3
9 x 12	$1\frac{3}{8}$	2- 7 x 1-5
9 x 14	$1\frac{3}{8}$	2- 7 x 1-7
9 x 16	$1\frac{3}{8}$	2- 7 x 1-9
10 x 12	$1\frac{3}{8}$	2-10 x 1-5
10 x 14	$1\frac{3}{8}$	2-10 x 1-7
10 x 16	$1\frac{3}{8}$	2-10 x 1-9
12 x 14	$1\frac{3}{8}$	3- 4 x 1-7
12 x 16	$1\frac{3}{8}$	3- 4 x 1-9
8 x 10	$1\frac{3}{8}$	2- 4 x 1-3
9 x 12	$1\frac{3}{8}$	2- 7 x 1-5
9 x 14	$1\frac{3}{8}$	2- 7 x 1-7
9 x 16	$1\frac{3}{8}$	2- 7 x 1-9
10 x 12	$1\frac{3}{8}$	2-10 x 1-5
10 x 14	$1\frac{3}{8}$	2-10 x 1-7
10 x 16	$1\frac{3}{8}$	2-10 x 1-9
12 x 14	$1\frac{3}{8}$	3- 4 x 1-7
12 x 16	$1\frac{3}{8}$	3- 4 x 1-9

Face measurements: Stiles, $1\frac{3}{4}$ inches; top rail, 2 inches; bottom rail, 3 inches.

*Also carried in Western opening sizes, which are one inch wider.

For information regarding existing stocks, shipping points and prices, consult your Woodwork dealer's Curtis Catalog Supplement.



C-2824

C-2852

HOT bed sash and storm sash are necessities in which usefulness is the prime consideration. These Curtis items are neat and well made. The cost of properly equip-

ping a house with storm sash is soon covered by the saving in fuel. Like screens, Curtis storm sash are made $1\frac{1}{2}$ inches longer than windows, to allow for fitting.

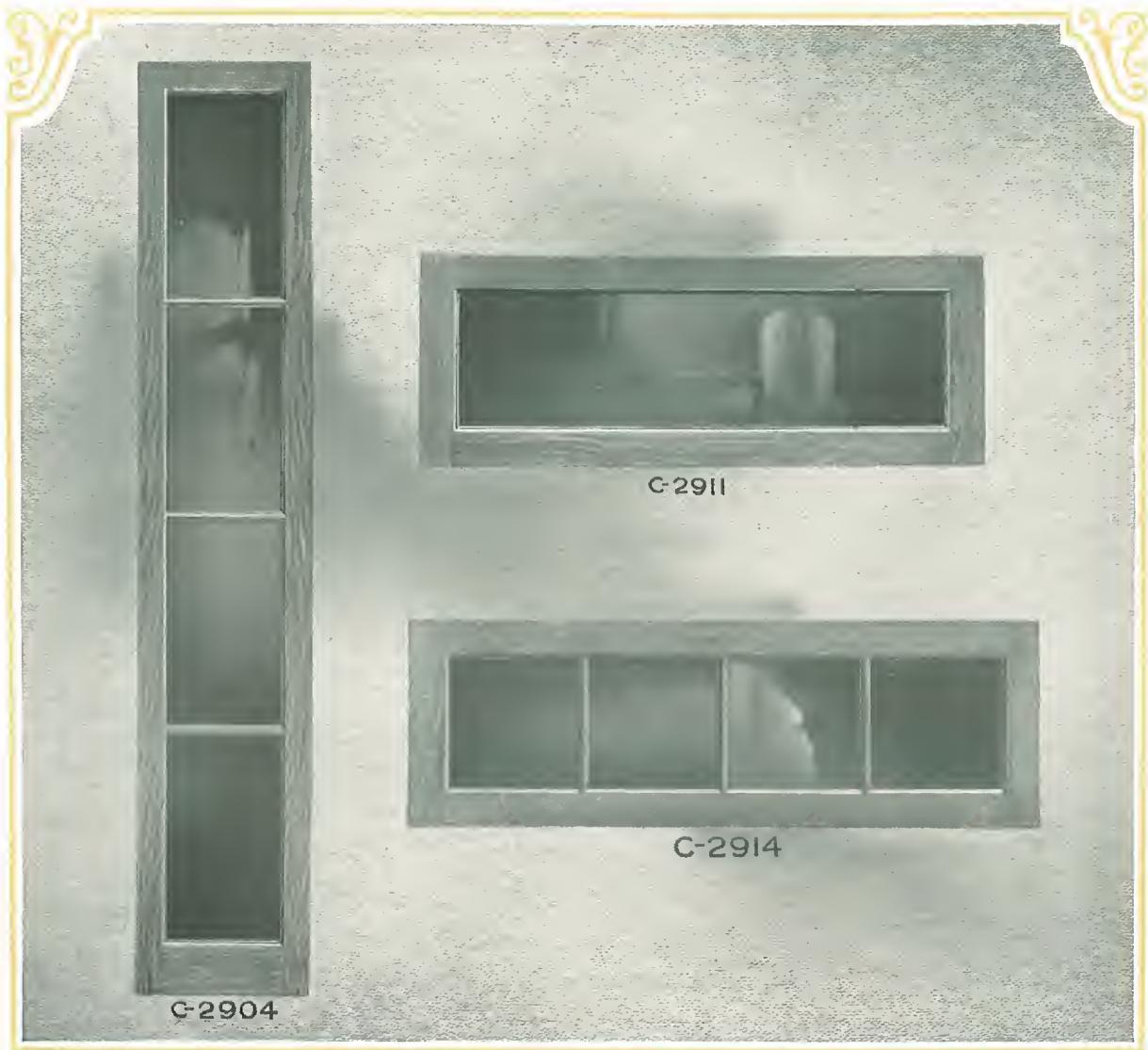
Hot Bed Sash C-2824, four-light, $1\frac{3}{8}$ inches thick, is furnished in opening size
3-0 x 6-0

Storm Sash C-2852, for two-light openings, $1\frac{1}{8}$ inches thick, is furnished in the following sizes:

Glass	Opening	Glass	Opening	Glass	Opening
16 x 20	1- 8 x 3-11 $\frac{1}{2}$	20 x 24	2-0 x 4- 7 $\frac{1}{2}$	24 x 28	2-4 x 5- 3 $\frac{1}{2}$
16 x 26	1- 8 x 4-11 $\frac{1}{2}$	20 x 26	2-0 x 4-11 $\frac{1}{2}$	26 x 24	2-6 x 4- 7 $\frac{1}{2}$
16 x 28	1- 8 x 5- 3 $\frac{1}{2}$	20 x 28	2-0 x 5- 3 $\frac{1}{2}$	26 x 26	2-6 x 4-11 $\frac{1}{2}$
18 x 20	1-10 x 3-11 $\frac{1}{2}$	22 x 24	2-2 x 4- 7 $\frac{1}{2}$	26 x 28	2-6 x 5- 3 $\frac{1}{2}$
18 x 24	1-10 x 4- 7 $\frac{1}{2}$	22 x 26	2-2 x 4-11 $\frac{1}{2}$	28 x 24	2-8 x 4- 7 $\frac{1}{2}$
18 x 26	1-10 x 4-11 $\frac{1}{2}$	22 x 28	2-2 x 5- 3 $\frac{1}{2}$	28 x 26	2-8 x 4-11 $\frac{1}{2}$
18 x 28	1-10 x 5- 3 $\frac{1}{2}$	24 x 24	2-4 x 4- 7 $\frac{1}{2}$	28 x 23	2-8 x 5- 3 $\frac{1}{2}$
20 x 20	2- 0 x 3-11 $\frac{1}{2}$	24 x 26	2-4 x 4-11 $\frac{1}{2}$		

Face measurements: Stiles, 2 inches; top rail, 2 inches; bottom rail, $4\frac{1}{2}$ inches.

These storm sash will also fit four-, eight- and twelve-light windows in Curtis opening sizes, but not in Western opening sizes.



MANY interiors can be made brighter and more up-to-date by the use of sidelights and transoms at entrances. This one-light transom is generally used above interior doors of ordinary widths, while the four-light tran-

som may be had for entrance doors with sidelights, or without. Sidelight sash, effectively used in entrance frames having wood panels below, make an otherwise commonplace entrance interesting.

SIDELIGHT SASH C-2904, four-light, $1\frac{3}{8}$ inches thick, is furnished in the following opening sizes:

0-10 x 4-5

0-10 x 4-9

TRANSOM SASH C-2914, four-light, $1\frac{3}{8}$ inches thick, is furnished in the following opening sizes:

3-0 x 0-10

3-4 x 0-10

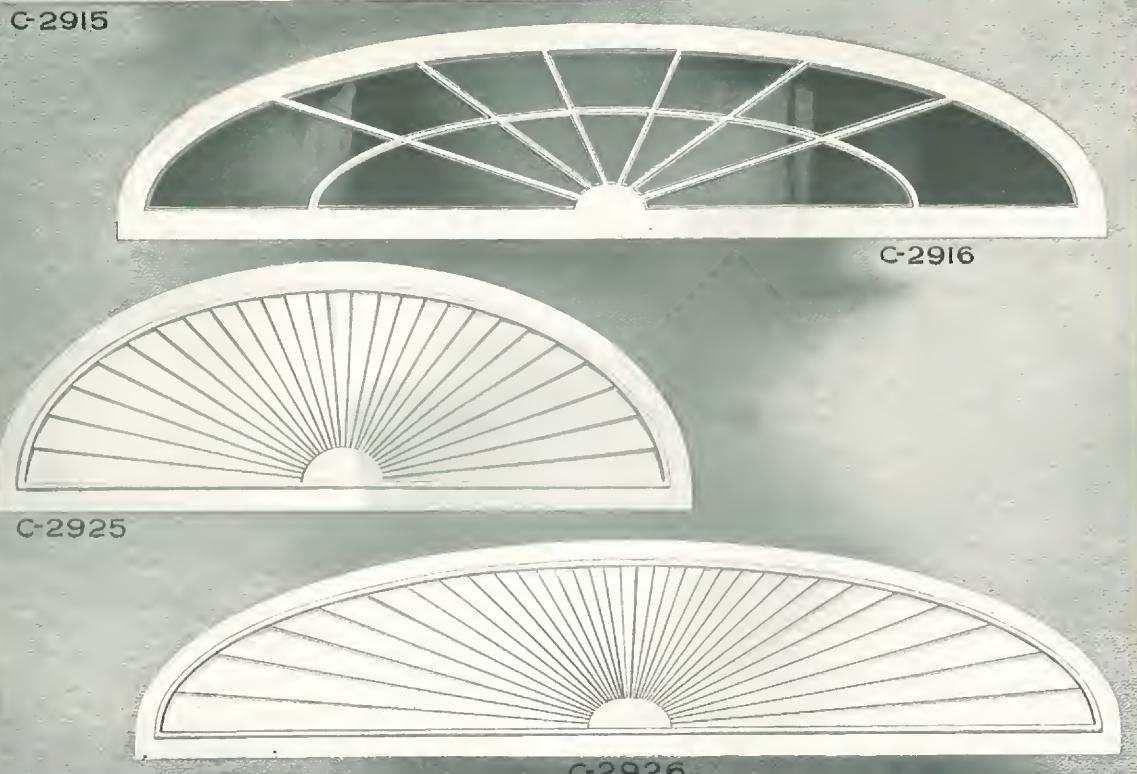
TRANSOM SASH C-2911, one-light, $1\frac{3}{8}$ inches thick, is furnished in the following opening sizes:

2-6 x 1-2
2-6 x 1-4

2-8 x 1-2
2-8 x 1-4

3-0 x 1-2
3-0 x 1-4

For information regarding existing stocks, shipping points and prices, consult your Woodwork dealer's Curtis Catalog Supplement.



C-2915

C-2916

C-2925

C-2926

FANLIGHTS above the entrance, so called because their shape is like a lady's open fan, are one of the attractive exterior features inherited from old Colonial houses. When glazed, these elliptical transoms help to light the hall or vestibule, especially where the door is without glass in the usual Colonial fashion. The wood division bars form a simple but graceful pattern.

TRANSOM SASH C-2915, $1\frac{3}{8}$ inches thick, is furnished in the following opening sizes:

3-1 x 1-1

3-5 x 1-1

TRANSOM FAN C-2925, $1\frac{3}{8}$ inches thick, is furnished in the following opening sizes:

3-1 x 1-1

3-5 x 1-1

Wood Transom Fans are furnished in the same sizes as transom sash, and are interchangeable in Curtis entrance frames and are generally used in entrances having sidelights.

Where ceilings are too low to permit the use of glass transom sash, the wood fan will produce the desired exterior architectural effect. In such cases a plain plastered wall is used directly behind the wood fan.

TRANSOM SASH C-2916, $1\frac{3}{8}$ inches thick, is furnished in the following opening sizes:

5-1 x 1-1

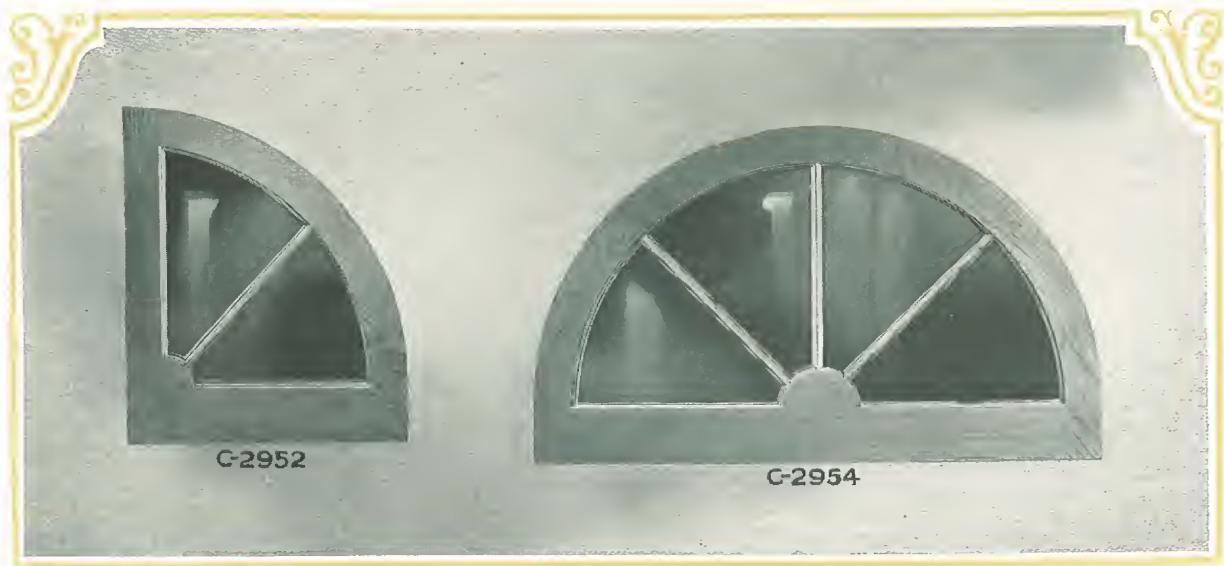
5-5 x 1-1

TRANSOM FAN C-2926, $1\frac{3}{8}$ inches thick, is furnished in the following opening sizes:

5-1 x 1-1

5-5 x 1-1

Such Curtis items as these transoms and the circle sash on page 23 enable homebuilders to complete the Colonial house correctly in every detail.



THE architectural character of any house depends upon correct use of small details. Quarter and half circle gable sash are appropriate in any style house where the roof pitch is about forty-five degrees. They provide ventilation and light for attic rooms.

QUARTER CIRCLE SASH C-2952, $1\frac{3}{8}$ inches thick, is furnished in the following opening sizes:

1-3 x 1-6

1-8 x 1-11

HALF CIRCLE SASH C-2954, $1\frac{3}{8}$ inches thick, is furnished in the following opening sizes:

2-6 x 1-6

3-4 x 1-11



Avoiding Window Troubles

WINDOWS sometimes stick or rattle as a result of not being properly fitted, or from swelling or shrinking, due to too much or too little moisture. Several simple precautions may be taken to avoid these troubles. When windows are delivered to the job, a suitable priming coat should at once be applied to stop the absorption of moisture. As

windows are set in place before the building is entirely dry, the wood parts are bound to swell to some extent. For that reason, it is not wise to fit them to operate too freely at first; otherwise when they become properly seasoned in the normal atmosphere of the home, they may become too loose. Windows should be primed as soon as delivered.

A Complete Line of Woodwork

THIS booklet covers only one section of the complete line of Curtis Woodwork. Many other items of finish are required for building

CURTIS ENTRANCES AND EXTERIOR DOORS

CURTIS CABINET AND STAIR WORK

CURTIS MOLDINGS AND TRIM

a house. To select these, and to realize their possibilities, consult other sections of this Curtis Catalog No. 500, as follows:

CURTIS INTERIOR DOORS

CURTIS FRAMES AND EXTERIOR WOODWORK

Where to Buy Curtis Woodwork

TO purchase Curtis Woodwork, go to the woodwork dealer in your own locality, or to your lumber dealer. In most localities east of the Rockies, there is a Curtis dealer who can give you complete information, including prices, shipping points and time of delivery. In larger cities, especially, there are Curtis

dealers who have many items of Curtis Woodwork in their own stock and on display in their display rooms, so that you may see the actual woodwork you are buying.

If you do not have a regular dealer, write us for the name of the nearest dealer who sells Curtis Woodwork.

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